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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/797,664

03/11/2004

Pieter Johannes Marius Van Groos

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26111

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01/26/2009

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1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

KIM, PETER B

ART UNIT

PAPER NUMBER

2851

MAIL DATE

DELIVERY MODE

01/26/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/797,664	Applicant(s) VAN GROOS ET AL.	
	Examiner Peter B. Kim	Art Unit 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/8/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Dec. 8, 2008 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 5, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano (2002/0024645) in view of Hattori et al. (Hattori) (2002/0074635) and Satou et al. (Satou) (2002/0162574).

Nakano discloses an assembly and a method of maintaining a machine part arranged in an interior space (9) of a machine, wherein the interior is kept at a first pressure (para 0006) and is separated from an environment (outside of chamber 9) via a load lock (14), the method characterized by transporting a machine part via the load lock out from the interior space; and transporting via the load lock into the interior space, the machine part after being maintained or a separate replacement machine part (para 0012). Nakano discloses the machine which is a lithographic projection apparatus (Fig. 1) and gripper (16) arranged to grip and release substrate.

Art Unit: 2851

Nakano discloses the machine part (substrate) which is connected to and disconnected from the machine via a connection system (chuck) and self aligns (alignment system of a lithographic apparatus). Nakano does not disclose transportation of a substrate table or a gripper and a handler that has either a plurality of protrusions or grooves that engage with a plurality of grooves or protrusion located on the machine part. Hattori discloses transporting wafer holder (para 0142, Fig. 4 and 5). Satou discloses a handler (robot arm 40) comprising protrusions (engage pins) which engage with grooves (engaging grooves 18) to transport a machine part. Although Nakano does not disclose that the machine part is a substrate table or a gripper configured to grip and release the substrate or a substrate table, it would have been obvious to one of ordinary skill in the art at the time of the invention to transport a substrate table or a gripper, as taught by Hattori, similar to transportation of the wafer as taught by Nakano in order to purge impurities and prevent contamination (Nakano para 0016, 0017) and to use a handler taught by Satou with the invention of Nakano in order to provide a means of securely holding the machine part.

Claims 1-5, and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verbeke et al. (Verbeke) (2003/0045131 in view of Hattori et al. (Hattori) (2002/0074635) in view of Satou et al. (Satou).

Verbeke discloses an assembly and a method of maintaining a machine part arranged in an interior space (630) of a machine, wherein the interior is kept at a first pressure (para 0073) and is separated from an environment (610) via a load lock (606, 608), the method characterized by transporting a machine part via the load lock out from the interior space; and transporting via

Art Unit: 2851

the load lock into the interior space, the machine part after being maintained or a separate replacement machine part (para 0073) wherein the apparatus and the load lock are arranged to maintain the first pressure when open to the interior space, and to maintain the second pressure when open to machine part or a separate replacement part (para 0073). Verbeke also discloses cleaning the machine part outside the interior part (200, para 0050). Verbeke discloses the machine which is a lithographic projection apparatus (Fig. 18A, ref 1816) and gripper (1808) arranged to grip and release substrate. Verbeke discloses the machine part (substrate) which is connected to and disconnected from the machine via a connection system (chuck) and self aligns (alignment system of a lithographic apparatus). Verbeke does not disclose transportation of a substrate table or a gripper and a handler that has either a plurality of protrusions or grooves that engage with a plurality of grooves or protrusion located on the machine part. Hattori discloses transporting wafer holder (para 0142, Fig. 4 and 5). Satou discloses a handler (robot arm 40) comprising protrusions (engage pins) which engage with grooves (engaging grooves 18) to transport a machine part. Although Verbeke does not disclose that the machine part is a substrate table or a gripper configured to grip and release the substrate or a substrate table, it would have been obvious to one of ordinary skill in the art at the time of the invention to transport a substrate table or a gripper, as taught by Hattori, similar to transportation of the wafer as taught by Verbeke in order to purge impurities and prevent contamination (Verbeke para 0070-0073) and to use a handler taught by Satou with the invention of Verbeke in order to provide a means of securely holding the machine part.

Art Unit: 2851

Claims 6-8, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano in view of Hattori et al. and Satou et al. as applied to claims 1 and 11 above, and further in view of Miyai et al. (Miyai) (5,825,470).

Nakano discloses the claimed invention as discussed above; however, Nakano does not disclose the machine part which is a substrate table and a pin, which can extend thorough the substrate table to displace the table with respect to the chuck. Miyai discloses transporting a machine part which is a substrate holder (44) from an interior space (12) to an outer environment (14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the invention of Nakano including the load lock to transporting of the substrate holder from the exposure chamber to the cleaning chamber using the load lock in order to prevent any impurities from entering the exposure chamber as taught by Nakano in para 0010.

Claims 6-8, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verbeke et al. (Verbeke) in view of Hattori et al. and Satou et al. as applied to claims 1 and 11 above, and further in view of Miyai et al. (Miyai).

Verbeke discloses the claimed invention as discussed above; however, Verbeke does not disclose the machine part which is a substrate table and a pin, which can extend thorough the substrate table to displace the table with respect to the chuck. Miyai discloses transporting a machine part which is a substrate holder (44) from an interior space (12) to an outer environment (14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply the invention of Verbeke including the load lock to transporting of the substrate holder from the exposure chamber to the cleaning chamber using the load lock in order

Art Unit: 2851

to prevent exposing the exposure space to the atmosphere of the cleaning space as taught by Verbeke in para 0070-0073.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 17 of U.S. Patent No. 7,123,349 in view of Hattori et al. (Hattori) and Satou et al. (Satou). Both sets of claims are directed to an assembly for transporting a machine part from one environment to another environment via a load lock. 7,123,349 does not claim transportation of a substrate table or a gripper or a gripper and a handler that has either a plurality of protrusions or grooves that engage with a plurality of grooves or protrusion located on the machine part. Hattori discloses transporting wafer holder (para 0142, Fig. 4 and 5). Satou discloses a handler (robot arm 40) comprising protrusions

Art Unit: 2851

(engage pins) which engage with grooves (engaging grooves 18) to transport a machine part. Although 7,123,349 does not claim that the machine part is a substrate table or a gripper configured to grip and release the substrate or a substrate table, it would have been obvious to one of ordinary skill in the art at the time of the invention to transport a substrate table or a gripper, as taught by Hattori, similar to transportation of the wafer as claimed by 7,123,349 in order to purge impurities and prevent contamination. Although 7,123,349 does not claim a method, it would have been obvious to one of ordinary skill in the art to provide a method of transporting from the claimed apparatus since the same apparatus is used in the process and to use a handler taught by Satou with the invention of 7,23,349 in order to provide a means of securely holding the machine part.

Response to Arguments

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection. In response to the amendments to the claim, the rejection has been modified as above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter B. Kim whose telephone number is (571) 272-2120. The examiner can normally be reached on 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571) 272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2851

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter B. Kim/
Primary Examiner, Art Unit 2851

January 20, 2009